

RECEIVED
CENTRAL FAX CENTER

MAY 23 2008

EDWARDS ANGELL PALMER & DODGE LLP

101 Federal Street Boston, MA 02110 617.439.4444 fax 617.439.4170 capdlaw.com

Date : May 23, 2006

Pages (including cover) : 4

Sender :

Name Steven M. Jcnsen
Fax 617.439.4170
Email sjcnsen@capdlaw.com

Phone 617.517.5531

To : Fax Phone
U.S. Patent & Trademark Office 571-273-8300

If you experience problems receiving this fax, please call Katie Drury at 617.951.2288.

Message : Re: Our Docket No. 56370 (71987)
U.S. Serial No. 09/929,765

Please enter the attached response.

Fax

Confidentiality Note: The documents accompanying this facsimile contain information from the law firm of Edwards Angell Palmer & Dodge LLP, which may be confidential and/or privileged. The information is intended only for the use of the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this facsimile is strictly prohibited, and that the documents should be returned to this firm immediately. If you have received this facsimile in error, please notify us by telephone immediately so that we can arrange for the return of the original documents to us at no cost to you.

BOSTON | FT. LAUDERDALE | HARTFORD | NEW YORK | PROVIDENCE | SOUTHBURY | STAMFORD | WEST PALM BEACH | WILMINGTON | LONDON

MAY-23-2006 TUE 02:42 PM E A P & D

FAX NO. 6174394170

P. 02

RECEIVED
CENTRAL FAX CENTER

MAY 23 2006

Docket No. 56370 (71987)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: C. Liao

U.S. SERIAL NO.: 09/929,765 GROUP: 2815

FILED: August 14, 2001 EXAMINER: M. Warren

FOR: BALL GRID ARRAY PACKAGE WITH ELECTRICALLY-
CONDUCTIVE BRIDGE

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted by facsimile to the U.S. Patent & Trademark Office by facsimile number 571-273-8300 on May 23, 2006.

By: 
Steven M. Jensen

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE TO OFFICE ACTION

Applicant is in receipt of the Office Action dated February 23, 2006 of the above-referenced application. Applicant responds to the Office Action as follows.

Claims 6, 8, 11, and 14 are pending in the application.

Applicant's claimed invention is directed to a ball grid array package including an electrically-conductive bridge that is mounted to span in an overhead manner across an interposing electrically-conductive trace, for electrically connecting a bond finger to a corresponding conductive via (see claims 6 and 11).

C. Liao
U.S. Serial No. 09/929,765
Page 2 of 3

Claims 6 and 14 were rejected under 35 USC 103(a) as being unpatentable over "Applicant's Prior Art Figures 3 and 4 (APAF)" in view of Japanese Publication 60-157238 to "Takahama". Claim 8 was rejected under 35 USC 103(a) as being unpatentable over APAF in view of Takahama, and further in view of U.S. Patent 3,560,256 to Abrams. Claim 11 was rejected under 35 USC 103(a) as being unpatentable over APAF in view of Takahama and Abrams. These rejections are respectfully traversed.

As indicated in the Office Action of 02/23/2006, prior art FIGS. 3 and 4 do not teach or suggest the electrically-conductive bridge recited in independent claims 6 and 11.

Regarding independent claim 6, Takahama does not teach or suggest, whether taken alone or in combination with APAF, an electrically-conductive bridge that is mounted to span an electrically-conductive trace, where the bridge connects a via and a bond finger.

In Takahama, aluminum wires are used to electrically connect a semiconductor element 4 to another semiconductor element 5 (see FIG. 3).

On page 3 of the Office Action, it was alleged that reference numbers 3, 4, and 5 correspond to Applicant's claimed "conductive traces." However, in Takahama, reference number 3 is an "electrode," and reference numbers 4 and 5 are the "semiconductor elements" (see English-language abstract).

Moreover, although bond fingers and conductive vias are disclosed in "APAF," the Takahama reference merely teaches using aluminum wires for electrically connecting two semiconductor elements 4 and 5 (see FIG. 3).

In other words, the Applicant's claimed bond finger and via are structurally distinguishable from the semiconductor elements in Takahama, and the electrically-conductive bridge recited in claims 6 and 11 provides connections to different elements (i.e., a bond finger and via), as compared to the aluminum wires disclosed in Takahama.

C. Liao
U.S. Serial No. 09/929,765
Page 3 of 3

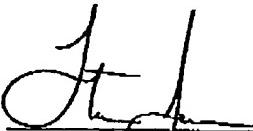
Regarding independent claim 11, in the Office Action, it was further alleged that the thin-film resistor disclosed in Abrams could be adjusted to be a "zero-resistance chip resistor." However, there is no teaching or suggestion that the thin-film resistor of Abrams is capable of exhibiting zero resistance, or that such a thin-film resistor would have the same effect as the Applicant's claimed "zero-resistance chip resistor."

Moreover, as shown in FIGS. 1 and 2 of Abrams, the thin-film resistor 28 must be formed with a crossover dielectric 29 to support the thin-film resistor 28, where the crossover dielectric 29 is formed on and covering a conductor completely. Therefore, in Abrams, no space is formed beneath the thin-film resistor which would allow a conductive trace to pass through without contact. In other words, if Abrams was somehow combined with APAF and Takahama, it would not be possible to leave an "unfilled gap" between the chip resistor and an interposing electrically-conductive trace, as required in claim 11.

For at least the reasons described above, independent claims 6 and 11 patentably distinguish over the proposed combination of "APAF" in view of Takahama and/or Abrams. Likewise, dependent claims 8 and 14 are patentable over the cited references.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,



Peter F. Corless (Reg. No. 33,860)
Steven M. Jensen (Reg. No. 42,693)
Edwards Angell Palmer & Dodge
P.O. Box 55874
Boston, MA 02205

Date: May 23, 2006

Phone: (617) 439-4444

Customer No. 21874